

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY  
TITLE V OPERATING PERMIT #OP2667-02 TECHNICAL REVIEW DOCUMENT**

**Permitting and Compliance Division  
Air Resources Management Bureau  
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**Plum Creek Manufacturing, L.P.  
Columbia Falls Operation  
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The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		PM <sub>10</sub> , NO <sub>x</sub> , VOCs, and CO
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		As Applicable
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
<b>Applicable Air Quality Programs</b>			
ARM Subchapter 7 Preconstruction Permitting	X		Permit #2667-12
New Source Performance Standards (NSPS)		X	
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	Except 40 CFR 61, Subpart M
Maximum Achievable Control Technology (MACT)	X		40 CFR 63, Subpart DDDD, Plywood/Particle Board & Industrial Boilers; Subpart DDDDD, Industrial, Commercial, Institutional Boilers and Process Heaters
Major New Source Review (NSR) – includes Prevention of Significant Deterioration (PSD) and/or Non-attainment Area (NAA) NSR	X		
Risk Management Plan Required (RMP)	X		Submitted June 18, 1999
Acid Rain Title IV		X	
Compliance Assurance Monitoring – ARM 17.8, Subchapter 15	X		Appendix E #OP2667-02: Hog Fuel Boiler (Dry ESP - PM <sub>10</sub> ); Line 1 Fiber Dryer (Wet ESP - PM <sub>10</sub> ); Line 2 Fiber Dryer (Wet Venturi Scrubbers - PM <sub>10</sub> )
State Implementation Plan (SIP)	X		Columbia Falls PM <sub>10</sub> SIP

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## **SECTION I. GENERAL INFORMATION**

### **A. Purpose**

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emitting units affected by the operating permit renewal proposed for this facility. The document is intended for reference during review of the proposed permit by the Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit application and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the original application submitted by Plum Creek Manufacturing, LP (Plum Creek), on July 12, 1995, additional information submitted on October 7, 1996; the operating permit renewal application submitted by Plum Creek on September 9, 2003, additional information submitted on October 17, 2003, July 31, 2003, September 22, 2004, and December 27, 2004; and from Montana Air Quality Permits #2667-08, #2667-09, #2667-10, #2667-11, and #2667-12.

### **B. Facility Location**

Plum Creek Manufacturing, L.P. owns and operates the Columbia Falls facility. The facility produces lumber, plywood, and a medium density fiberboard (MDF) and is defined under Standard Industrial Classifications (SIC) 2421, 2436, 2493, which include sawmill and planing mill, softwood veneer and plywood, and reconstituted wood products.

The facility is located in Flathead County, Columbia Falls, Montana, Section 7 and the SW¼ of Section 8, Township 30 North, Range 20 West. The plant's UTM Coordinates are Zone 11, with an Easting of 707.7 km, and a Northing of 5361.7 km with a plant wide elevation of 3075 feet above sea level.

The community of Columbia Falls is located on the west bank of the Flathead River while the Plum Creek facility is located on the northwest side of Columbia Falls. The facility is adjacent to residential communities and a public school is within a few blocks of the plant.

### **C. Facility Background Information**

The air quality classification for the area is "better than National Standards" or "Unclassifiable" for all pollutants (40 CFR 81.327) except PM<sub>10</sub>. The Columbia Falls area of Flathead County has been designated as a nonattainment area for PM<sub>10</sub>. The Plum Creek facility is located in this nonattainment area and has been identified as a contributor to the nonattainment status of Flathead County. This designation means that Prevention of Significant Deterioration (PSD) and New Source Review (NSR) rules apply to this facility.

The nearest significant complex terrain is Teakettle Mountain which rises more than 2,000 feet above the valley floor. It is located five miles northeast of Columbia Falls. There are two nearby areas designated as mandatory Federal Class I airsheds, which include Glacier National Park and the Bob Marshall Wilderness. The closest Class I airshed is Glacier National Park, which is located approximately 8 miles east of the facility. The Bob Marshall Wilderness airshed is located within 25 miles of Columbia Falls.

## Montana Air Quality Permit History

Prior to **Permit Modification #2667-M**, only the plywood veneer dryer (#2667), the Wellons unit (#1501), the MDF fiber dryers (#2233), the new baghouses at the MDF plant (#2174), and the original MDF plant (#5640051073) were subject to separate air quality permits.

On October 24, 1991, **Permit #2667-M** was issued to Plum Creek because the Department of Environmental Quality (Department) was required to develop a PM<sub>10</sub> emission control program as part of the State Implementation Plan (SIP) to bring the Columbia Falls area into compliance with the PM<sub>10</sub> standards and demonstrate maintenance of the standards. This permit set allowable limits for wood-waste transfer cyclones, fugitive dust, and baghouses as well as limits for the veneer dryers, the fiber dryers, and the boiler.

On January 24, 1992, **Permit #2667-01** was issued as a modification to Permit #2667-M. The permitting action combined the entire facility under one permit and included a reduction of fugitive dust emissions resulting from chemical stabilization of plant roads and log yard areas.

On September 1, 1992, **Permit #2667-02** was issued to reconcile a discrepancy between the hourly emission limitations listed in the permit and the annual emission limitations listed in the permit analysis.

On January 5, 1994, **Permit #2667-03** was issued to install the Combustion Engineering natural gas boiler. This boiler supplies the steam necessary for the lumber drying kilns to operate year round. Prior to this installation, the steam supplied to the lumber drying kilns was shut off during the winter months because of the increased demand for steam from the rest of the facility. The lumber that was intended to be dried in the kilns was stacked outside and allowed to air dry as much as possible. When capacity allowed, the lumber was placed in the kiln for a final polishing dry.

On July 11, 1994, **Permit #2667-04** was issued to construct and operate an electrostatic precipitator (ESP) on the wood-fired Riley-Union Stoker boiler. The ESP replaced the wet scrubber that was formerly used to control emissions from the boiler. This installation alleviated a back pressure on the boiler which allowed the steam production to increase to 170,000 pounds per hour with a maximum input capacity to 292.4 MMBtu/hr. The additional steam was sufficient to allow a plant production increase of 13%.

The permit also allows the Medium Density Fiberboard (MDF) plant to install an additional sander, an air density separator, and a blow hog. The emissions from the sander will be controlled by the MDF sander dust baghouse. The emissions from the air density separator and the blow hog will vent to a MDF materials handling baghouse. In addition, secondary refiners installed in the MDF line will improve fiber quality and two more platens to be added to the MDF press will increase the capacity of the press.

To offset the increase in particulate emissions from the construction of the new sources and the increase in production capabilities, Plum Creek reduced the enforceable emission rate from the veneer dryers. In 1991, Plum Creek installed an ESP on the veneer dryer stack at the Columbia Falls plywood plant. Although the ESP was required to control opacity, a decrease in particulate emissions was also achieved. The decrease in particulate emissions had not been reflected in a permit or the State Implementation Plan.

The construction of the new sources of emissions, coupled with the increase in production capabilities, resulted in a net decrease of total particulate (26.4 tpy) and net increases in PM<sub>10</sub> (5.6 tpy), NO<sub>x</sub> (315 tpy), CO (162 tpy), Volatile Organic Compound (VOCs) (97.7 tpy), and a negligible increase in toxic air pollutants. The emissions increase of NO<sub>x</sub>, CO, and VOC each exceeded significant levels and were, therefore, subject to PSD review.

On April 17, 1995, **Permit #2667-05** was issued to install 4 GeoEnergy E-tube wet electrostatic precipitators (ESP) on the stacks of the MDF fiber dryers. Each ESP was designed to accommodate a stack flow of 70,000 acfm (280,000 acfm total) and vent to a common stack.

Plum Creek proposed to replace the two Energex burners used to heat the face dryer with a larger Coen burner. The Coen burner has a heating capacity of 50 MMBtu/hr. The increase in available heat to the MDF Fiber Dryers, along with Plum Creek's installation of two additional platens for the MDF Press, will increase the capacity of the dryers from 37 to 57 tons/hour of bone dry fiber processed. The production increase results in a significant net emissions increase of VOC, NO<sub>x</sub>, CO, and SO<sub>2</sub> and is subject to a PSD review.

The baghouse allowable emissions for the facility were changed to the pound-per-hour equivalent of the 0.005 gr/dscf emission rate. The previous method for determining the allowable emissions assumed the baghouses were 90% more efficient than cyclones. Manufacturers typically guarantee an emission rate of 0.005 gr/dscf for baghouses.

In addition, Plum Creek reinstalled an existing cyclone in the MDF raw materials storage building. This 10,000 acfm board trim cyclone allows trim to be recycled into the MDF process. It vents inside the MDF building where the emissions are controlled by the existing MDF material handling baghouse. This baghouse, previously permitted by Permit #2667-04, was re-configured from a single baghouse with an air flow of 70,000 dscfm to two 25,000 dscfm units, which vent to a common stack.

As a final modification, Plum Creek installed an ESP between the Wellons cell and the veneer dryers. The ESP removes particulate from the gas stream that is used to heat the veneer dryers which results in a higher product quality. Although the ESP is not a source of emissions or a stack associated with a source of emissions, the installation of the ESP constitutes a changed condition of operation so the permit was modified to reflect this change.

On May 5, 1995, **Permit #2667-06** was issued to allow an extension of time to complete the NO<sub>x</sub> and CO testing on the Riley-Union Stoker boiler. The permit modification required Plum Creek to demonstrate compliance with the NO<sub>x</sub> and CO limits on the Riley-Union Stoker boiler by September 22, 1995.

On July 26, 1995, Plum Creek was issued **Permit #2667-07** to increase the allowable CO emissions from the Riley-Union Stoker boiler from 100 lb/hour to 468 lb/hour. The previous limit was based on AFSEF emission factors, which has since been determined to be inappropriate for a 20-year-old boiler. Manufacturers' data and tests on similar boilers suggest that CO emissions from a boiler of this type may be as high as 1.6 lb/MMBTU. Assuming a heat input capacity of 292.4 MMBTU/hour, an hourly emission rate of 468 lb/hr is calculated thus the allowable CO emissions for the boiler are increased by 1,612 tons/year although actual CO emissions do not change. Because the allowable CO emission increase exceeded significance levels, the permit was subject to PSD review. As required by the PSD review process, the appropriate Federal Land Managers (FLM) and the EPA were given the opportunity to comment on the proposal but no comments were received from either party.

On October 2, 1997, Plum Creek was issued **Permit #2667-08** by the Department to correct particulate emission limits for the MDF Felter #1 & #2 Baghouses. The emission limits were correctly calculated in the permit analysis of Permit #2667-07 as 1.93 lb/hr of particulate but the emission limit was mistyped as 0.39 lb/hr in the permit. In addition, this modification updated the rule citations, removed testing and notification requirements already met by Plum Creek, updated the existing equipment list, and updated the emission inventory by including the sawmill sawdust target box and the drying kilns. As part of updating the equipment list, P17 Plywood #1 Chip Bin Cyclone and P18 Plywood #2 Chip Bin Cyclones were replaced by P23 Plywood Chip Bin Cyclone and P24 Plywood Fines Target Box.

On December 23, 1999, Plum Creek was issued **Permit #2667-09** for the addition of a second MDF production line (Line 2). Unlike Line 1 (batch press), the new production line utilizes a continuous press for the production of MDF. Adding Line 2 to the MDF facility increased the production of MDF and profit from the facility. New limits were added to the permit and new emitting units were added to the emission inventory.

The addition of Line 2 triggered the PSD rules for CO, NO<sub>x</sub>, and Ozone (measured as VOC). Because Plum Creek agreed to various limits, the contemporaneous emission changes of particulate matter and PM<sub>10</sub> were below PSD significance levels. For this reason, no additional air quality analysis was required for particulate matter and PM<sub>10</sub>.

On July 4, 2001, Plum Creek was issued **Permit #2667-10** for an alteration in the design of the Line 2 MDF dryer emissions control equipment. The ESP was replaced by two Venturi scrubbers operating in series with a bio-filter system.

The addition of Line 2 triggered the PSD rules for CO, NO<sub>x</sub>, and Ozone (measured as VOCs). Plum Creek was not subject to New Source Review Nonattainment Area permitting requirements.

Because the Best Available Control Technology (BACT) determination had changed since the initial issuance of Permit #2667-09 for the second MDF line, the FLMs and EPA were given an opportunity to review the application submitted by Plum Creek. The change in the BACT caused the emission dispersion characteristics of the stacks to change, although the emission limits for the Line 2 MDF dryers will remain the same.

In addition to changing the emission controls for the second line, Plum Creek has made minor changes to several cyclones and baghouses on the existing and proposed MDF lines. The sizes and locations of some of the Line 2 baghouses have changed in the new design. Two cyclones have been removed from the Line 1 MDF process, and some of the baghouse names have been changed.

The emission inventory reflects the change in flow rates based on the volume of cooling air introduced into the bio-filter system. Due to the dryer stack dispersion characteristics and the baghouses, Plum Creek has submitted a revised PM<sub>10</sub> compliance demonstration with this application. The modeling shows that the second line MDF project will not cause or contribute to a violation of the Montana Ambient Air Quality Standards (MAAQS).

On January 16, 2003, Plum Creek was issued **Permit #2667-11**. Plum Creek submitted a NSR/PSD application for three historical projects at the Columbia Falls facility. During an independent compliance awareness review performed in 2000, Plum Creek discovered that the 1989 MDF Coen Burner Project, the 1990 MDF Line Speed Up Project, and the 1992 MDF Heating and Humidification Project should have gone through PSD permitting prior to the projects being constructed and/or implemented. Based on the PSD Significant Emission Rates, the 1989 MDF Coen Burner Project would have been subject to PSD permitting for CO and NO<sub>x</sub>;

the 1990 MDF Line Speed Up Project, for PM, PM<sub>10</sub>, and VOCs; and the 1992 MDF Heating and Humidification Project, for PM, PM<sub>10</sub>, and VOCs. As the Columbia Falls area (including the Plum Creek facility) was designated as a nonattainment area for PM<sub>10</sub> by the EPA on November 15, 1990, the 1992 project would have triggered nonattainment area NSR permitting for PM<sub>10</sub>. This permitting action addresses the PSD permitting, including the construction/implementation of the above-mentioned projects.

In addition, on November 19, 2002, the Department received a request from Plum Creek to remove the requirement limiting the MDF Line 2 equipment to 8760 hours per year. As there are only 8760 hours in a year, this requirement is not necessary and will be removed.

### **Title V Permit History**

On January 13, 1999, Title V Operating Permit **#OP2667-00** was issued to Plum Creek as final and effective.

On September 11, 2003, Plum Creek was issued final and effective Title V Operating Permit **#OP2667-01**, which was a significant modification of the existing permit to incorporate the activities permitted under Montana Air Quality Permits #2667-09, #2667-10 and #2667-11. Permit #2667-09 included the addition of a second MDF production line (Line 2). The new production line utilized a continuous press for the production of MDF. New limits were added to the permit and new emitting units were added to the emission inventory.

Permit #2667-10 included an alteration in the design of the Line 2 MDF dryer emissions control equipment. The ESP was replaced by two Venturi scrubbers operating in series with a bio-filter system.

Permit #2667-11 included an emission limit change to the Riley-Union Stoker Boiler for PM<sub>10</sub>. In addition, the requirement limiting the MDF Line 2 equipment to 8760 hours per year was removed. Operating Permit #OP2667-01 replaced Operating Permit #OP2667-00.

### **D. Current Permit Action**

As required under ARM 17.8.1205(d), on September 9, 2003, Plum Creek submitted to the Department an application for Title V Operating Permit renewal **#OP2667-02**. The application was deemed technically complete on December 27, 2004, with the submittal of a complete Compliance Assurance Monitoring (CAM) plan for applicable units in operation at the facility.

Since issuance of Permit #OP2667-01, there has been only one significant modification to permitted operations at the Plum Creek facility, specifically, the addition of the 96.4 MMBtu/hr heat input capacity Babcock and Wilcox natural gas/diesel-fired boiler. The current permit action adds the new boiler to permitted operations. As applicable, the Babcock and Wilcox natural gas/diesel-fired boiler is subject to the NSPS requirements contained in 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units; and the MACT requirements contained in 40 CFR 63, Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters.

In addition, the current permit action updates Section I, General Information, to reflect a change in the facility Responsible Official (RO). Further, in accordance with the requirements contained in ARM 17.8, Subchapter 15, the Operating Permit renewal incorporates a CAM plan (Appendix E to Operating Permit #OP2667-02) for PM<sub>10</sub> emissions from the existing wood-waste boiler

controlled by a dry electrostatic precipitator (DESP) system; the Line 1 Fiber Dryer controlled by a wet electrostatic precipitator (WESP); and the Line 2 Fiber Dryer controlled by 2 wet Venturi scrubbers. Also, during the Operating Permit renewal application process, Plum Creek requested a relaxation of recordkeeping log entry requirements for various emitting units covered under the Operating Permit. After review of the request, the Department maintains that the existing recordkeeping log entry requirements are necessary and consistent with other similar source permitting for certain recordkeeping requirements, such as verification of semiannual inspections.

At this time, the Department will not modify this type of recordkeeping requirement, as requested. However, for certain other existing recordkeeping requirements, such as documentation of the hours of operation of control equipment, the Department agrees with Plum Creek and has relaxed this type of recordkeeping requirement, where appropriate. Finally, the current permit action updates various sections of the Operating Permit with current Title V Operating Permit language and established requirements. Operating Permit #OP2667-02 replaces Operating Permit #OP2282-01.

### **Takings and Damaging Checklist**

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under Montana or U.S. Constitution. As Required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications; the checklist was completed on January 6, 2005.

### **E. Compliance Designation**

The last inspections conducted prior to issuing the draft permit occurred on August 18, 2004, September 3, 2003, July 11, 2002; May 17, 2001; June 20, 2000; September 15, 1998; August 28, 1997; September 3, 1996; July 25, 1995; August 31, 1994; and July 14, 1993. The inspections in 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003, and 2004 found no violations, however, the inspection in 1993 and 1994 each found a violation. A citation was issued on April 26, 1994, for constructing an ESP for the control of emissions from the Riley-Union Wood-fired boiler. This construction commenced without Plum Creek first obtaining an air quality permit. Also, a citation was issued on August 31, 1994, for an opacity violation of the Riley-Union Wood-fired boiler. The opacity was documented at 43%.



## SECTION II. SUMMARY OF EMITTING UNITS

### A. Facility Process Description

This facility consists of three plants all located at the same site: the sawmill, the plywood mill, and the MDF plant. The sawmill and plywood mills receive raw logs by truck. The logs are stored and sorted before being transferred to the mill for sawing into dimension lumber or to the plywood plant for peeling into veneer. Waste wood such as chips, sawdust, and planer shavings are transferred to the MDF plant for processing into fiberboard. Wood shavings and sawdust are also received from outside facilities as raw material for the fiberboard plant.

#### **Sawmill and Planer**

The primary operation at the facility is the production of stud grade lumber from raw logs. The process of cutting the logs into lumber includes debarking, sawing, chipping, kiln drying, planing, and packaging for shipping. The process begins by bringing raw logs from the log storage area and feeding them into the debarker. The debarker removes the bark from the log, which produces hogfuel. The peeled logs are cut to length by block saws located outside the sawmill building. The blocked logs enter the sawmill where they are cut to a dimension. The green lumber is sorted, bundled, and stacked for drying in the steam heated dry kilns. The Riley-Union Stoker boiler is used to provide steam to the drying kilns to dry rough green lumber. After the lumber is dried, it is taken to a planer. As the final step in manufacturing dimensional lumber, planers smooth the lumber surfaces and saws cut and size the lumber to final dimensions. The lumber is stacked and wrapped for shipping in the planer building before it is taken to market by either truck or rail.

During the processing of raw logs to dimensional lumber, there are four main types of by-products or residuals produced. The by-products of lumber manufacturing are sawdust, wood chips, planer shavings, and hog fuel. Three of the by-products are in a green or wet condition while the fourth by-product is relatively dry (wood shavings). The shavings are planed from the lumber after it has been dried in the dry kilns. These byproducts may be burned in the wood waste boilers, stored in bins, or used in the MDF process. The hog fuel is used as the fuel in the boiler to provide steam to the dry kilns. Bark from the log debarking process is the main fuel for the Riley-Union Stoker boiler. The boiler emits PM, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOCs, Pb and a number of HAPs associated with wood combustion.

#### **Plywood Plant**

The manufacture of plywood consists of seven main processes: log debarking and bucking, heating the logs, peeling the logs into veneers, drying the veneers, gluing the veneers together, pressing the veneers in a hot press, and finishing processes such as sanding and trimming.

After debarking, the logs are cut to appropriate lengths in a step known as bucking. The logs (now referred to as blocks) are heated in hot water vats to improve the cutting action of the veneer lathe. The veneer lathe cuts the blocks into veneers. Lathed veneers are placed in a green veneer inventory, which are dried at either the Columbia Falls facility or the Plum Creek Evergreen, MT facility. The veneer dryers are heated with a wood-fired Wellons Fuel Cell. Gases escaping from the veneer dryer at the feed point are vented outdoors through roof vents directly above the dryer feed location, otherwise, the veneer dryer exhausts to a wet ESP. Plum Creek also purchases dry veneers and adds them to the dry veneer inventory made by the facility.

Plywood panels are made from dry veneers layered with glue and veneer cores. They are glued together with a thermosetting resin, phenol-formaldehyde, which is used for softwood and exterior grades of hardwood. The resin is applied through an automated process. Once the panels have been laid-up, the panels are pressed in a prepress to hold the panel composition together. The panels then enter the plywood press where both steam heat and pressure are applied to form plywood. Hot pressing has two main objectives: (1) to press the glue into a thin layer over each sheet of veneer; and (2) to activate the thermosetting resin. The unfinished plywood is then taken to a finishing process where panels are cut, sanded, and patched to form finished plywood. The finished plywood is sorted, packaged for shipping and taken to market by rail and truck.

### **MDF Plant**

The general steps used to produce MDF include mechanical pulping of wood chips to fibers (refining), drying, blending fibers with a resin and sometimes wax, forming the resinated material into a mat, and hot pressing.

Shavings, chips, and sawdust are brought to the MDF material handling building from other locations. A mixture of shavings, chips, and sawdust is screened by the scalper screen before entry into the air density separators. This allows for a cleaner raw material input into the MDF plant. The mixture of materials is stored in four storage silos. From the storage silos, the wood mixture is fed into the presteaming bin where the material is softened by steam before being sent to the digestors. The material is transferred from the digestors to the refiners. The refiners use revolving disks to mechanically pulp the chips to obtain fibers in a suitable form for making the board. The fibers are blended with a resin that discharges the resinated fibers to the dryer. At this point, the fibers move to the face or core fiber processing line. The two flash-tube dryers are used to reduce the moisture content of the fibers to desired levels. The dryers expel the dried wood fiber for use in the forming line. In emergency situations such as a fire in the dryers, the fibers in the dryer are aborted to the MDF Fire Dump Cyclone.

At the forming line, a layer of face fiber is laid down on the automated forming line, followed by two layers of core fiber, which is topped with a final layer of face fiber. This is a continuous process for forming the board, i.e., the fibers are deposited on a continuously moving screen system.

The continuously formed mat (four layers of fiber) must be prepressed using two-precompressors before the fiber board is cut into sheets and pressed into medium density fiberboard in the hot press. The press applies heat and pressure to activate the resin and bond the fibers into a solid panel. Pressing with steam heat and pressure occurs in the platen process. The press roof vents exhaust most of the press emissions into the atmosphere. The MDF boards are then cooled, sanded, and trimmed to final dimensions. MDF to be used indoors is treated with ammonia to remove residual formaldehyde. Part of the MDF product is painted with a wood grain finish. Finally, the finished product is packaged for shipment.

Unlike Line 1 (batch press), the new production line, the Line 2 MDF utilizes a continuous press for the production of MDF. Adding Line 2 to the MDF facility will greatly increase the production of MDF and profit from the facility. New limits were added to the permit and new emitting units were added to the emission inventory in the permit analysis.

### **Facility Boilers**

All three plants share B01 Riley-Union Stoker boiler as a source of process steam for their operations. The boiler uses wood waste supplemented with natural gas as a fuel. B02 20,000 pph steam boiler is a smaller natural gas boiler located at the plywood facility. This boiler is used when B01 Riley-Union Stoker boiler is not operating or additional steam is required. B04 Combustion Engineering boiler is a smaller natural gas boiler located near B01 Riley-Union Stoker Boiler which is used to add supplemental steam heat plant wide when B01 Riley-Union Stoker boiler is unable to serve the necessary steam load for the facility. Finally, the 96.4 MMBtu/hr Babcock & Wilcox natural gas/diesel fired boiler has been installed and will eventually replace B02 and B04 operations after removal of these units from facility operations.

## **B. Emitting Units and Pollution Control Device Identification**

The emission units, devices, activities, and pollution control devices at the facility are identified below along with a discussion of the periodic monitoring and applicable requirements for each specific emissions source.

### **B01 Riley - Union Stoker Boiler**

The Riley-Union Stoker boiler was manufactured in 1973. It supplies steam heat to the entire facility. The steam is used in the dry kilns, plywood press, log vats, MDF platen presses and for MDF heating. The fuels used are wood waste and natural gas although less than 10% of natural gas is burned as supplemental fuel. The boiler is rated at 292 MMBtu/hr and 170,000 pph steam. The control equipment includes both multiclones (primary) and a dry ESP (secondary). The ESP was manufactured in 1993 by PPC Industries. It has an estimated control efficiency of 99% and includes four fields.

All applicable requirements have been identified in the permit. The periodic monitoring for the boiler requires operating, inspecting, and maintaining the control equipment in accordance with the manufacturer's recommendations. Requirements for emission standards in the permit include periodic source tests for PM<sub>10</sub>, NO<sub>x</sub>, and CO, visual surveys and/or semiannual opacity determinations, and recordkeeping.

### **B02 20,000 pph Steam Boiler and B04 Combustion Engineering Boiler**

Both boilers are natural gas fired, used to supply steam, and have no control equipment. The 20,000 pph Steam Boiler was manufactured in 1967 and is rated at 32.3 MMBtu/hr. The 20,000 pph Steam Boiler is located at the plywood plant. The Combustion Engineering Boiler was manufactured in 1954 and is rated at 31.2 MMBtu/hr and 22,500 pph steam.

The sulfur in fuel, opacity, and PM<sub>10</sub> emission limits compliance demonstration may be satisfied by burning only natural gas in the boilers. Natural gas purchased from utility companies is substantially free of sulfur and does not exceed the sulfur in fuel requirement. Testing has not been required for any pollutant because the only emission limit established for these boilers is for particulate matter and the boilers' potential emissions for PM<sub>10</sub> is less than 1 ton per year per boiler.

### **96.4 MMBtu/hr Babcock and Wilcox Natural Gas / Diesel Boiler (75,000 lb Steam/hr)**

The Babcock & Wilcox boiler is natural gas and diesel fired, used to supply steam, and does not incorporate control equipment. The boiler was manufactured in 1993 and is capable of producing 75,000 lb/hr of steam. Boiler diesel combustion is limited, by permit, to a maximum of 165,000 gallons during any rolling 12-month time period.

The sulfur in fuel limit is satisfied by burning pipeline quality natural gas and diesel fuel with a sulfur content less than the specified concentration. Natural gas purchased from utility companies is substantially free of sulfur and does not exceed the sulfur in fuel requirement. Monitoring compliance with the opacity and PM<sub>10</sub> limits may be satisfied by burning only natural gas in the boilers or by conducting weekly visual surveys or Method 9 source testing when diesel fuel is combusted for boiler operations. In addition, when diesel fuel is combusted, the Department may require a Method 5 source test for PM<sub>10</sub> emissions.

Further, requirements for emission standards in the permit include an initial source test and the associated recordkeeping and reporting requirements for NO<sub>x</sub>, and CO. After the initial source test monitoring compliance with the applicable emission limits, additional source testing for NO<sub>x</sub> and CO shall be conducted, as required by the Department.

### **M01 MDF Raw Material Handling Fugitives**

These fugitive emissions result from handling shavings, sawdust, and chips. Shavings are stored inside the MDF Materials building and sawdust is stored outside of the building. Emissions result from unloading, stacking to piles, and removing from the piles. All wood waste material used to make MDF fiber is processed at this building.

Opacity and process weight are the only applicable requirements for the MDF Raw Materials. The compliance monitoring for these fugitive emissions includes performing weekly visual surveys and/or performing a Method 9 test or taking appropriate corrective actions to contain or minimize emissions. The Department may request a Method 9 at any time to monitor compliance with the opacity rule. In addition, the Department may request a Method 5 at any time to monitor compliance with the process weight rule.

### **MDF Material Handling Cyclones and Baghouses**

The following emission units are all considered material handling cyclones and baghouses. Currently, the preconstruction permit contains emission limits for both total particulate and PM-10 for the majority of these cyclones and baghouses.

<u>Description</u>	<u>Flow (ACFM)</u>
M02 MDF N. Sander Baghouse #7	55000
M03 MDF S. Sander Baghouse #8	55000
M04 MDF Board Trim Fuel Baghouse #10	5000
M05 MDF Sanderdust Fuel Baghouse	15000
M06 MDF Hog Fuel Boiler Sanderdust Baghouse #11	15000
M07 MDF In-Line Baghouse #5	50000
M08 MDF CPS & In-Line Baghouse #6	50000
M09 MDF Metering Bin Baghouse #1	50000
M10 MDF Felter Baghouse #1	50000
M11 MDF Felter Baghouse #2	50000
M12 MDF Reject Fiber Cyclone & Baghouse	vents inside
M13 MDF Materials Handling Baghouses (2)	50000
M14 MDF Fire Dump Cyclone (emergency only)	
M17 MDF Board Trim Cyclone (vents inside)	10000
M20 Line 2 MDF North Sander Baghouse	50000 dscfm
M21 Line 2 MDF South Sander Baghouse	50000 dscfm

M22 Line 2 MDF Reject Baghouse	80000 dscfm
M23 Line 2 MDF Forming Baghouse	50000 dscfm
M24 Line 2 MDF Coen Fuel Bin Baghouse	4100 dscfm

### **Line 1 and Line 2 MDF Material Handling Baghouses**

These baghouses all have established particulate emission limits and hours of operation limit from the preconstruction permit. The compliance monitoring method for opacity requires performing visual surveys and/or semiannual Method 9 tests. The monitoring methods for the particulate emission limits include inspection and maintenance of the baghouses, which should ensure compliance. The Department may request source tests at anytime to monitor compliance with the emission limits.

### **M13 MDF Material Handling Baghouses**

M13 MDF Materials Handling Baghouses (2) each have a testing requirement previously included in the preconstruction permit. M13 MDF Sander Baghouse was included in the original permit application and preconstruction permit. The permit required (via General Conditions) that construction was to commence by April 17, 1998. On May 22, 1996, the Department received a letter from Mitchell Leu requesting an extension to construct the MDF Sander Baghouse, Blow Hog and additional platens because construction had not commenced at the issuance of this permit. The Department responded with a letter on May 30, 1996, which stated that Plum Creek should request an extension through a permit modification and if BACT had not changed then the permit would be reissued. The Department has since received notification from Plum Creek to remove the MDF Sander Baghouse from the preconstruction permit and the operating permit.

These baghouses have established particulate emission limits and hours of operation limit from the preconstruction permit. The monitoring methods for opacity include performing visual surveys and/or semiannual Method 9 tests. The compliance monitoring methods for the particulate emission limits include testing on an every 3-year schedule.

### **Miscellaneous Line 1 MDF Material Handling Baghouses and Cyclones**

These sources do not have any established particulate emission limits other than the process weight rule. Both M12 MDF Reject Fiber Cyclone & Baghouse and M17 MDF Board Trim Cyclone vent inside the MDF Building and M14 MDF Fire Dump Cyclone is only used in emergency situations. Monitoring compliance with the opacity limit shall be accomplished by performing visual surveys and/or a semiannual Method 9 compliance source test. Monitoring will include inspection and maintenance of the equipment.

### **M15 Line 1 MDF Face & Core Dryers**

There are two MDF fiber dryers. The Core dryer consists of a sanderdust Coen burner with a heating capacity of 50 MMBtu/hr. One of the dryers is a face dryer heated by one Coen burner with a capacity of 50 MMBtu/hr.

The MDF fiber dryers are controlled with 4 GeoEnergy E-tube wet electrostatic precipitators (ESP). Each ESP is designed to accommodate a stack flow of 70,000 acfm (280,000 acfm total). The dryers are capable of processing 57 tons/hr of bone dry fiber.

The testing requirements for PM<sub>10</sub> and VOCs include the requirements previously included in the preconstruction permit. Visual surveys and/or semiannual Method 9 observations have been

added to monitor compliance with opacity and monitoring includes performing maintenance and inspections on the ESP(s) in accordance with the manufacturer's recommendations.

### **M16 Line 1 MDF Forming & Finishing**

Emissions from the 6 press vent fans and the 10 board cooler fan vents are vented through the roof using induced draft fans. The fans control the fugitive formaldehyde and VOCs.

Visual surveys and/or semiannual Method 9 source testing has been required to monitor compliance with opacity. If opacity is exceeded, a Method 5 test may be required by the Department to demonstrate compliance with the PM<sub>10</sub> emission limit. The VOC emission limit was based on an emission factor developed through testing at potential production; it is unlikely that the limit will be exceeded. Scheduled testing to demonstrate compliance with the VOC limit has not been required at this time but may be required at the Department's request.

### **Outdoor Plywood Plant Process and Material Handling Fugitive Emissions**

The fugitive emissions from the P02 Bucking Saws; P04 #1 Chip Truck Bin Loadout; P05 #2 Chip Truck Bin Loadout; P06 #1 Truck Bin Loadout, Sawdust; P07 #2 Truck Bin Loadout, Sawdust; P08 #3 Truck Bin Loadout, Hog Fuel; and P24 Plywood Fines Bin Target Box have been grouped under Outdoor Plywood Plant Process and Material Handling Fugitive Emissions.

The bucking saw process equipment PM<sub>10</sub> emissions are estimated at 29 tpy. The materials from this process are temporarily stored in bins or silos until they are loaded into trucks for transport to another location or off site. Particulate emissions result from the loading and unloading of chips, sawdust, and hogfuel from the bins.

The applicable requirements associated with this group of emission units include opacity and process weight. Visual surveys and/or semiannual Method 9 tests have been required to monitor compliance with opacity. The Department may request a Method 5 test at any time to monitor compliance with the process weight rule.

### **P16 Plywood Presses**

Veneer sheets that have been layered with adhesive are placed in the presses to create plywood panels using steam heat and pressure. The presses emit VOC and formaldehyde emissions from the wood and glue. Overhead roof vents exhaust the majority of the emissions from the presses. The VOC emissions have been estimated at 26 tpy of which 0.02 tpy are estimated as formaldehyde.

The only applicable requirement for this source is opacity. Visual surveys and/or a semiannual Method 9 source test has been required as a method to monitor compliance.

### **Plywood Material Handling Baghouses and Cyclones**

The following emission units are all considered material handling cyclones and baghouses. The preconstruction permit contained emission limits for both total particulate and PM<sub>10</sub> for the following cyclones and baghouses.

<u>Description</u>	<u>Flow (ACFM)</u>
P19 Plywood Sander Baghouse	35000
P20 Plywood 18" Trim Baghouse	15000
P21 Plywood 30" Trim Baghouse	15000
P23 Plywood Chip Bin Cyclone	5000

Periodic monitoring for compliance with opacity for these sources includes visual surveys and/or a semiannual Method 9 source test. The visual survey frequencies for baghouses are weekly whereas cyclones are monthly. The particulate emissions from these baghouses and cyclones are all less than 6 tpy per emissions unit. Therefore, no particulate testing has been required to monitor compliance with the emissions limit at this time. However, the Department may require testing if it is determined to be necessary.

### **P22 Veneer Dryers & P14 Veneer Dryers, roof vents at feed point**

Two plywood veneer dryers with a combined design capacity of 20,000 square feet/hr of plywood on a 3/8" basis are used to heat the veneer sheets and drive off moisture. The dryers are heated with a Wellons wood waste burner, which has a design capacity of 30 MMBtu/hr. The dryer off gas and the burner combustion gases are routed through a Geo-Energy wet ESP and exhausted through a common stack. Fugitive emissions (particulates and VOC gases) are vented outdoors through roof vents directly above the dryer feed location.

Permit emission limits had been established for the veneer dryers by the preconstruction permit. The combined particulate and VOC fugitive emissions are less than 5 tpy. They have been grouped with the veneer dryers because ARM 17.8.1201(22)(b) states those fugitive sources associated with an emissions unit are to be quantified with that emissions unit and are not considered to be insignificant emissions unit.

Testing has been required to monitor compliance with the PM<sub>10</sub> emission limits and visual surveys and/or a semiannual Method 9 source tests have been required to monitor compliance with opacity. Periodic monitoring for the veneer dryers includes operation, inspection, and maintenance of the ESP and recordkeeping of types of fuel burned.

### **Outside Sawmill Process and Material Handling Fugitive Emissions**

S02 Chop Saws, S05 Sawdust Truck Bin Loadout, and S08 Planer Shavings Truck Bin were grouped together as outside sawmill process and material handling fugitive emissions because all of these emission sources have the same applicable requirements.

Particulate emissions from the process equipment are a result of sawing, debarking and grinding of logs and bark. The materials are temporarily stored in bins until they are loaded in to trucks for transport to another location or off site. Particulate emissions result from the loading and unloading of chips, sawdust, and hogfuel.

The applicable requirements associated with this group of emission units include opacity and process weight. Visual surveys and/or a semiannual Method 9 source test have been required to monitor compliance with the opacity limit. The Department may request a Method 5 test at any time to monitor compliance with the process weight rule.

### **S10 Lumber Drying Kilns**

The sawed lumber is placed in steam heated kilns and is dried before being planed. The kilns vary in size and emit VOCs through the building roof vents. The average process rate listed in the initial permit application (July 12, 1995) was 186,456 MMbdf/yr.

The applicable requirements associated with this group of emission units include opacity and process weight. Visual surveys and/or a semiannual Method 9 source test has been required to monitor compliance with opacity. The Department may request a Method 5 test at any time to monitor compliance with the process weight rule.

### **Sawmill Material Handling Cyclones**

The following emission units are considered material handling cyclones. Periodic monitoring to monitor compliance with opacity for these sources includes visual surveys and/or a semiannual Method 9 source tests. The particulate emissions from these cyclones are all less than 25 tpy per emissions unit while the majority of the cyclones are under 5 tpy. Therefore, no particulate testing has been required to demonstrate compliance with the emissions limit at this time. However, the Department may require testing if it is determined as necessary.

<u>Description</u>	<u>Flow (ACFM)</u>
S12 Planer #3 Cyclone	24000
S13 Planer #4 Cyclone	60000
S14 Planer Shavings Bin Cyclone	6000
S15 Planer Chip Bin Cyclone	6000
S16 Sawmill Chip Bin Cyclone	6000

### **F01 Vehicle Activity**

These fugitive emissions result from driving vehicles on both paved and unpaved roads/areas. Plum Creek has been required to perform visual surveys and/or a semiannual Method 9 source tests to monitor compliance with opacity rules.

### **F04 Hog Boiler Fuel Handling & Storage**

The PM<sub>10</sub> emissions (23 tpy) result from storing hog fuel on an outside storage pile at the facility. Hog fuel is trucked to the pile and added to the pile either from live bottom trucks. The hog fuel is removed from the pile in an enclosed bunker.

The applicable requirements associated with this group of emission units include opacity and process weight. Plum Creek has been required to perform visual surveys and/or a semiannual Method 9 source test to monitor compliance with opacity. The Department may request a Method 5 test at any time to monitor compliance with the process weight rule.

### **H04 Wood Grain Ink and H05 PMA Glycol Ether Solvent**

The wood grain ink and glycol ether solvent are significant emission units because each one emits in excess of 5 tons per year of VOCs. In addition, the wood grain ink has the potential to emit in excess of 500 lbs per year of toluene and xylene (HAPs). The only applicable requirement for these sources includes opacity. The Department determined that performing visual surveys and/or a semiannual Method 9 source test will monitor compliance with the opacity rule.

## **C. Insignificant Sources/Activities**



Plum Creek did not identify any insignificant emitting units/activities under the Operating Permit renewal application. As part of the initial Operating Permit application (July 12, 1995), Plum Creek identified several emission units as insignificant in their permit application. However, what was identified in the application as insignificant and what the Department identified as insignificant differed as a result of a March 31, 1998, rule change. The appropriate changes were made to the list of insignificant activities and are listed in the table below.

<b>Insignificant Activities and Emissions Unit</b>	
<b>Emissions Unit</b>	<b>Reason for Determination</b>
F02 Rail Activity; F03 Landfill Activity; P01 Log Debarker; P02 Bucking Saws; P03 Bark Hog; P09 Wet Fuel Silo; P10 Dry Fuel Silo; P11 Emergency Fuel Pile; P12 Woodwaste Chipper; P15 Plywood Building; S01 Log Debarker; S03 Bark Hog (wet); S09 Sawmill Bldg. Saws; S11 Planer Building, Saws; S17 Sawmill Sawdust Bin Cyclone;	These sources emit particulate at potential levels less than 5 tpy and are subject to generally applicable requirements only.
H01 Gasoline Fueling Tanks; H02 Diesel Fueling Tanks; H03 Propane Fueling Tanks; H06 Machine Shop - Parts Washer;	These sources emit VOCs and some HAPs at potential levels less than 500 lbs/yr and are subject to generally applicable requirements only.
M21 MDF Ammonia Treatment Stacks and M22 MDF Building Fugitives	These sources emit ammonia which is not a regulated pollutant:

#### **H02 Diesel Fueling Tanks**

There are three diesel tanks sized at 500; 18,000; and 31,700 gallons. The fugitive VOC emissions (including HAPs) result from filling tanks, breathing losses and vehicle fueling losses.

#### **M21 MDF Ammonia Treatment Stacks and M22 MDF Building Fugitives**

Ammonia is impregnated into the MDF to react with any available formaldehyde. The unit that impregnates the ammonia into the MDF is vented through four stacks into the atmosphere. The maximum rated design capacity is 57 ton/hr of MDF. There are no controls installed on these stacks.

The only applicable requirement for ammonia emissions other than those that may be required under SARA Title III and 40 CFR 68 include opacity. Ammonia emissions are very unlikely to exceed the opacity limit, therefore, a Method 9 test will only be required upon request.

### **SECTION III. PERMIT CONDITIONS**

#### **A. Emission Limits and Standards**

The only new emission limits and standards applicable to the facility, since issuance of Operating Permit #OP2667-01, are included in Section III.D for the relatively newly installed and operated Babcock & Wilcox natural gas/diesel fired boiler. The rule citations for all emission limits are included in the operating permit.

#### **B. Hazardous and Toxic Air Pollutants**

According to the emission estimations provided by Plum Creek in the Title V permit application, this facility is a major source of HAP emissions and 215.5 tpy of ammonia. The total HAPs are primarily products of incomplete combustion of metals in the boilers' ash, the face and core dryers, and the MDF forming and finishing.

The ammonia emissions are from the MDF ammonia treatment building. Ammonia is used to treat residual formaldehyde in the MDF panels that are sold as construction materials to be used in furniture and other materials used indoors. Ammonia is released from the ammonia treatment stack as well as escaping from the building as a fugitive.

Plywood pressing applies both steam heat and pressure to the layers of veneer and a glue to form the plywood panels. The glue and wood contain volatile organic compounds such as formaldehyde, which escapes from the panels under heat and pressure. Overhead roof vents exhaust these emissions.

#### **C. Monitoring Requirements**

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirement for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor for all emission units. Furthermore, it does not require extensive testing or monitoring to assure compliance with the applicable requirements for emission units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for an insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (i.e., no monitoring) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit may not include monitoring and/or recordkeeping for all generally applicable requirements such as ARM 17.8.304, 308, 310, 322, and 324.

The information obtained from the monitoring and recordkeeping will be used by Plum Creek to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards. If

it is determined through testing using test methods identified in the Montana Source Testing

Protocol that Plum Creek is out of compliance with any applicable requirement, Plum Creek will not be shielded from an enforcement action even if the required monitoring methods listed in the permit indicate compliance with the applicable requirement.

**D. Test Methods and Procedures**

This section does not require Plum Creek to conduct any more testing than was previously included in the preconstruction permit. Although the operating permit may not require testing because routine monitoring is used to determine compliance, the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, Plum Creek may elect to voluntarily conduct compliance testing to confirm compliance status.

**E. Recordkeeping Requirements**

Plum Creek is required to keep all records listed in the operating permit as a permanent business record for at least 5 years following the date of the generation of the record.

**F. Reporting Requirements**

The reporting requirements are included in the permit for each emissions unit and Section V. General Conditions of the operating permit explain the reporting requirements. However, Plum Creek is required to submit semiannual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The report will include a list of all emission limits and monitoring deviations, the reason for any deviation, and the corrective action as a result of the deviation.

**G. Public Notice**

In accordance with ARM 17.8.1232, a public notice was published in the *Daily Inter-Lake* newspaper on or before April 11, 2005. The Department provided a public comment period on the draft operating permit from April 11, 2005, through May 11, 2005. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process. The comments and issues received by May 11, 2005, will be summarized, along with the Department's responses, in the following table. All comments received during the public comment period will be promptly forwarded to Plum Creek so they may have an opportunity to respond to these comments as well.

**Summary of Public Comments**

Person/Group Commenting	Comment	Department Response
None	NA	NA

**H. Draft Permit Comments**

### Summary of Permittee Comments

Permit Reference	Permittee Comment	Department Response
General Comment All Sources	Plum creek requests that the visual survey requirement be removed from the permit for the 40+ affected emitting units and that the requirement for semiannual Method 9 performance source tests be maintained as the sole compliance monitoring method for the affected emitting units.	The language allowing Plum Creek to choose either periodic visual surveys (weekly) or semiannual Method 9 performance source tests to monitor compliance with the applicable opacity limit(s) is standard Department language for sources of this type. Since, under the draft permit, Plum Creek has the option of using either compliance monitoring methodology, the Department believes that the current draft language is appropriate and consistent with similar source permit requirements. Therefore, the Department will not modify the permit prior to issuance of the proposed permit, as requested.
General Comment All Sources	Draft Title V Operating Permit #OP2667-02 requires biannual inspection and maintenance inspections for most sources. Specifically, the permit requires that Plum Creek conduct the inspections and maintain a log including the date, time, results of the inspection, and the initials of the documenting personnel. Plum Creek is requesting that the Department remove the specific log entry requirements discussed above and replace this language with more simplified language stating that, "...documentation of inspection and maintenance activities shall be maintained".	The Draft permit language specifying the semiannual inspection and maintenance log requirements is standard Department language for sources of this type and is consistent with the requirements for other similar regulated sources. Therefore, the Department will not modify the permit prior to issuance of the proposed permit, as requested.
Section III.F	The In-Line and CPS & In-Line Baghouse names were recently changed to Booksaw and Sander Hog Baghouses, respectively, this change should be reflected in the proposed Title V Operating Permit.	The Department will incorporate the affected unit name changes into the proposed permit, as requested.
Section III.H	The units included under Section III.H were previously required to conduct a Method 9 performance source test, "as required by the Department" to monitor compliance with the applicable opacity limits. Under Draft Title V Operating Permit #OP2667-02, this requirement has been changed to semiannual Method 9 Source testing.	The draft language allows Plum Creek to choose either periodic visual surveys (weekly) or semiannual Method 9 performance source tests to monitor compliance with the applicable opacity limit(s) and is standard Department language for sources of this type. Since, under the draft permit, Plum Creek has the option of using either compliance monitoring methodology, the Department believes that the current draft language is appropriate and consistent with similar source permit requirements. Therefore, the Department will not modify the permit

		prior to issuance of the proposed permit, as requested.
Section III.J	The requirement for a semiannual Method 9 performance source test on "...at least one press vent fan and one board cooler fan vent...", rather than on all affected units has been left out of the compliance monitoring method language in this section.	The Department will specify semiannual Method 9 performance source testing for "...at least one press vent fan and one board cooler fan vent..." prior to issuance of the proposed Title V Operating Permit, as requested.
Section III.M	Section III.M.5 does not include a particulate testing requirement or testing schedule for unit M24. Plum Creek requests that the compliance monitoring requirement in Section III.M.5 be modified to include a Method 5 performance source test, "as required by the Department", for this unit.	The Department agrees that this de minimis source of emissions should include a particulate matter compliance monitoring method under the Title V Operating Permit renewal. Therefore, the Department will include the requirement for a Method 5 performance source test, "as required by the Department", for this unit prior to issuance of the proposed permit, as requested.
Section III.O	The previous Title V Operating Permit required monthly visual surveys for the affected de minimis units while the draft permit requires weekly visual surveys. Plum Creek requests that the visual survey frequency for these units be changed back to monthly.	The requirement for weekly visual surveys for the affected unit(s) was inadvertently changed in the draft permit. The Department believes that the appropriate visual survey schedule for these de minimis units is monthly. The Department will change the visual survey schedule from weekly to monthly prior to issuance of the proposed permit, as requested.
Section III.S	The previous Title V Operating Permit required monthly visual surveys for the affected de minimis units while the draft permit requires weekly visual surveys. Plum Creek requests that the visual survey frequency for these units be changed back to monthly.	The requirement for weekly visual surveys for the affected unit(s) was inadvertently changed in the draft permit. The Department believes that the appropriate visual survey schedule for these de minimis units is monthly. The Department will change the visual survey schedule from weekly to monthly prior to issuance of the proposed permit, as requested.

#### Summary of EPA Comments

Permit Reference	EPA Comment	Department Response

## SECTION IV. NON-APPLICABLE REQUIREMENTS ANALYSIS

Pursuant to ARM 17.8.1221, under the initial Title V permit action, Plum Creek requested a permit shield for all non-applicable regulatory requirements and regulatory orders identified in the tables in Section 8 of

the permit application. In addition, the initial Plum Creek permit application identified a permit shield request for applicable requirements for both the facility and for certain emission units. The Department determined that the requirements identified in the permit application for the individual emissions unit are non-applicable. These requirements are contained in the permit in Section IV- Non-applicable Requirements.

The following table outlines those requirements that Plum Creek had identified as non-applicable in the initial permit application but will not be included in the operating permit as non-applicable. The table includes both the applicable requirement and reason that the Department did not identify this requirement as non-applicable.

**Requirements Not Included in Section IV. Non-applicable Requirements of the Operating Permit**

<b>Applicable Requirement</b>	<b>Reason for Not Including</b>
40 CFR 50 National Primary and Secondary Ambient Air Quality Standards	These rules have been excluded from Title V as an applicable requirement. However, these rules can be used to impose specific requirements on a major source.
40 CFR 62 Approval and Promulgation of State Plans for Designated Facilities and Pollutants	Because this rule contains requirements for regulatory authorities and not major sources, this rule can be used to impose specific requirements on a major source.
Sub-Chapter 3 Emission Standards	
ARM 17.8.324(1)&(3) Hydrocarbon Emissions -- Petroleum Products	This facility has gasoline storage tanks in excess of 250 gallons.
ARM 17.8.326 Prohibited Materials for Wood or Coal Residential Stoves	This rule may not be applicable to the source at this time, however, it may become applicable during the life of the permit.
Sub-Chapter 5 Air Quality Permit Application, Operation, and Open Burning Fees	
ARM 17.8.501 Definitions	These rules consist of regulatory definition and do not have specific requirements associated with them.
ARM 16.8.1904 Additional Air Quality Operation Fees Required to Fund Specific Activities of the Department Directed at a Particular Geographic Area	Repealed
ARM 17.8.510 Annual Review	These rules do not have specific requirements for major sources because they are requirements for EPA or state and local authorities and are never shielded because these rules can be used as authority to impose specific requirements on a major source.
ARM 17.8.514 Air Quality Open Burning ARM 17.8.515 Air Quality Open Burning Fees for Conditional Emergency, Christmas Tree Waste, and Commercial Film Production Open Burning Permits	The following regulations may not be applicable to the source at this time, however, these regulations may become applicable during the life of the permit.
Sub-Chapter 6 Open Burning	
ARM 17.8.611 Emergency Open Burning	The following regulations may not be applicable to the

Applicable Requirement	Reason for Not Including
Permits ARM 17.8.612 Conditional Air Quality Open Burning Permits	source at this time, however, these regulations may become applicable during the life of the permit.

## SECTION V. FUTURE PERMIT CONSIDERATIONS

### A. MACT Standards

Plum Creek is subject to the Maximum Achievable Control Technology (MACT) standards under 40 CFR 63, Subpart DDDD, National Emission Standards for Hazardous Air Pollutants from Plywood and Composite Wood Products manufacturing, as applicable.

Further, Plum Creek is subject to the MACT standards under 40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, as applicable.

### B. NESHAP Standards

Plum Creek is subject to the requirements of 40 CFR 63, Subpart M – National Emission Standards for Hazardous Air Pollutants for Demolition and Renovation, as applicable. The Department is unaware of any future requirement that may be promulgated during the permit term for which this facility must comply.

### C. NSPS Standards

As of July 21, 2005, the Department is unaware of any future NSPS requirement that may be promulgated that would affect this facility. The NSPS requirements that the facility would potentially be subject to include 40 CFR 60, Subparts D, Da, Db, and Dc Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. An explanation of applicability or non-applicability is included below.

1. 40 CFR 60, Subpart D  
Only the Riley-Union wood-waste boiler meets the size requirement, however, the boiler was constructed after August 17, 1971, and operates on wood waste and not more than 10% natural gas.
2. 40 CFR 60, Subpart Da  
This requirement is not applicable because Plum Creek does not fire any affected boiler with fossil fuel.
3. 40 CFR 60, Subpart Db  
This requirement is not applicable because the Riley-Union wood-waste boiler was constructed before June 19, 1984. Further, the Babcock and Wilcox boiler does not meet the definition of an affected facility under this subpart because the boilers rated heat input capacity is less than 100 MMBtu/hr.
4. 40 CFR 60, Subpart Dc  
The 96.4 MMBtu/hr heat input capacity Babcock and Wilcox boiler is subject to the requirements of this subpart, as applicable. The requirements of this subpart are not applicable to other potentially affected units at the facility because these units were

constructed prior to June 9, 1989.

**D. Risk Management Plan**

Plum Creek stores anhydrous ammonia in greater quantities than the minimum threshold quantity allowed by 40 CFR 68.115 or 40 CFR 68.130. Therefore, Plum Creek must comply with all Risk Management Plan Requirements. Plum Creek submitted the facility Risk Management Plan on June 18, 1999.